

#694

ISEE - 3

HELIUM IONS, N, V, T: HOURLY AVGS

78-079A-11A

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This data set consists of one magnetic tape. The tape is 6250, 9-track, ASCII, mult-filed (VAX copy format). The tape was created on a VAX computer. The D and C number, number of files and time span are as follows:

D#	C#	FILES	TIME SPAN
D-62889	C-28063	3	08/17/78 - 12/29/83

NSSDC data set: 78-079A-11A

Spacecraft: ISEE-3/ICE

Instrument: Ion Composition Experiment  
(see: Coplan et al., Ion Composition Experiment, IEEE Trans. Geosci. Electron., vol. GE-16, No. 3, July 1978, pp. 185-191.)

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LEPVAX::U2KWO

Data Set Name: HELIUM IONS, DENSITY, BULK SPEED, KINETIC TEMP; HOURLY AVERAGES, 1978-1983

These data were electronically transferred to the NSSDC and then copied to tape using the VAX COPY command, thus creating a labeled tape with a default block size of 2048 bytes. The tape contains one data file (see note 1, below). Some explanatory text which was part of the original file has also been copied to tape and is part of the first data block. The tape label is IC3HE, and the data file name is HE7883.DAT.

The file contains data from the ion composition experiment of the ICE spacecraft. The data are in ASCII and consist of the time and hourly average values of speed, density, and temperature of 4-He<sup>++</sup> ions. The time interval of the data is 1978-Aug-17 to 1983-Dec-29. Major data gaps occur from 1982-Oct-05 to 1982-Dec-04, 1982-Dec-21 to 1983-Feb-08, and 1983-Mar-10 to 1983-Nov-19. The absolute density values are believed to be good to within about 20%, with relative changes in density good to within a few percent. The absolute uncertainties in the velocity and temperature measurements are believed to be 2% and 20% respectively. The geotail period data (October 1982 to December 1983) tend to be spotty with many zero values for density and temperature.

Spacecraft ephemeris data are not included. Daily values of the ISEE-3/ICE position in GSE coordinates are included as part of NSSDC data set 78-079A-02D.

For further information about the data and its limitations, contact Dr. Keith Ogilvie, Code 692, Goddard Space Flight Center, (301-286-5904), or Dr. Michael Coplan, University of Maryland, IPST, (301-405-4858). The user of this data should also see: Ogilvie, et al., "Solar Wind Observations with the Ion Composition Instrument aboard the ISEE-3/ICE Spacecraft", Solar Physics, vol. 124, pp. 167-183, 1989.

Sample data (format: 1X, F12.8, 6X, F5.1, 5X, E10.4, 5X, E10.4):

TIME (DECIMAL YR)	HELIUM SPEED (km/s)	HELIUM DENSITY (cm <sup>-3</sup> )	HELIUM TEMPERATURE (K)
78.62927808	394.7	0.2625E+00	0.3505E+06
78.62938341	402.1	0.3166E+00	0.2703E+06
78.62948870	400.3	0.0000E+00	0.0000E+00
78.62963916	400.5	0.3350E+00	0.4395E+06
78.62974445	400.9	0.1716E+00	0.3158E+06
78.62984978	407.0	0.3542E+00	0.7103E+06
78.62996008	434.5	0.2996E+00	0.3517E+06
78.63007543	442.1	0.2063E+00	0.2983E+06
.			
.			
.			
last record is			
83.99719477	525.2	0.1766E+01	0.3055E+06

Tape label	Data File name	Data File Size Tape Blocks/VAX blocks/MBy/lines
IC3HE	HE7883.DAT	787 / 3012 / 1.5 / 27535

Notes:

1. Since this is a labeled tape, there is a 5-block header file and a 4-block trailer file associated with the data file.
2. On a VAX, to copy the data file HE7883.DAT from tape to a disk file with the same name, do the following:

```
$ ALLOCATE <dev-name>
$ MOUNT <dev_name>: IC3HE
$ COPY <dev_name>:HE7883.DAT **
```

This will require 3012 VAX blocks on disk, and will create a file with 27535 lines of data.

